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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MATTHEW S. OSBORN and RONN HOUTZ

Appeal 2011-011685
Application 11/084,785
Technology Center 3600

Before JEFFREY N. FREDMAN, ERICA A. FRANKLIN, and
ULRIKE W. JENKS, *Administrative Patent Judges*.

JENKS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the rejection of claims directed to a meat processing system. The Patent Examiner rejected the claims for obviousness. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

The invention is directed to a meat processing system, and “relates to a hide-on carcass wash for reducing microbes during meat processing. More specifically, it relates to applying a fluid to an animal hide prior to removal to reduce microbes of the carcass.” (Spec. ¶ 002.)

Claims 35-57 are on appeal, and can be found in the Appendix of the Appeal Brief (App. Br. 16-19). Claim 35 is the sole independent claim and is representative of the claims on appeal, and reads as follows (emphasis added):

35. A meat processing system comprising a series of stations in order:
- A first station for stunning an animal;
 - A second station for exsanguinating the animal;
 - A third station that is a wash station where at *least one antimicrobial agent* is applied to a hide of a hide-on animal carcass; and
 - A fourth station that is a hide removal area configured to at least partially remove at least a portion of the hide from the hide-on animal carcass, wherein a conveyor system transports the hide-on animal carcass through at least the third and fourth stations.

The following grounds of rejection are before us for review:

Ground 1. The Examiner has rejected claims 35-38, 40-43, and 47-57 under 35 U.S.C. § 103(a) as unpatentable over Lawler¹ in view of Norrie² and further in view of either Simon³ or alternatively in view of Clayton.⁴

¹ Lawler, Jr. et al., US 6,196,912 B1, issued Mar. 6, 2001.

² Norrie US 4,829,637, issued May 16, 1989.

³ Simon et al., US 4,554,707, issued Nov. 26, 1985.

As Appellants do not argue the claims separately, we focus our analysis on claim 35, and claims 36-38, 40-43, and 47-57 stand or fall with that claim. 37 C.F.R. § 41.37 (c)(1)(vii).

Ground 2. The Examiner has rejected claims 39 and 44-46 under 35 U.S.C. § 103(a) as unpatentable over Lawler as modified by Norrie and Clayton, and Lawler as modified by Norrie and Simon, and further in view of Tsang.⁵

ISSUE

The Examiner takes the position that Lawler disclosed a meat processing system comprising the steps of stunning the animal, bleeding the animal and washing the animal. (Ans. 4.) “Lawler further discloses after the wash station that the hide-on animals are conveyed - at 42, out of the wash station, but does not specifically disclose where the animals are conveyed after the wash station.” (Ans. 4.) The Examiner acknowledged that “Lawler does not disclose the antimicrobial agent is applied to a hide of a hide-on animal carcass.” (Ans. 4.) Examiner finds that Norrie disclosed the application of an “antimicrobial agent to the hide of a hide-on animal carcass” (Ans. 4) after killing and bleeding the animal. The Examiner concludes that the ordinary artisan would have found it obvious to “take the device of Lawler and the applying the antimicrobial agent to the hide of the hide-on animal carcass of Norrie, so as to ensure that any contaminants are removed from the carcass prior to further processing.” (Ans. 4.) The

⁴ Clayton et al., US 4,862,557, issued Sept. 5, 1989.

⁵ Tsang, US 6,733,379 B2, issued May 11, 2004.

Examiner combines Clayton or Simon in the rejection for the limitation of removing an animal hide. (Ans.5).

Appellants contend that the references in any combination would not teach or suggest “a system having a hide removal area configured to remove the hide after treatment with an antimicrobial agent . . . [there is] no reason to change the prior art practice of NOT applying antimicrobial agent to the hide of an animal after exsanguination but prior to hide removal.” (App. Br. 14.)

The issue with respect to these rejections is: Does the evidence of record support the Examiner’s conclusion that the combination of references renders obvious the application of an antimicrobial agent to the hide prior to the removal of the hide in the meat processing system as claimed?

FINDINGS OF FACT

FF1. The Specification provides that “[t]he antimicrobial agent may be any chemical or substance capable of killing, neutralizing, *or removing microorganisms*. In one embodiment, *the antimicrobial agent is water* or some combination of water and at least one other antimicrobial agent” (Spec. ¶036)(emphasis added).

FF2. The wash system provided in the Specification contains a “heater 108 [that] may heat the wash solution to a temperature ranging from about 100 to about 190 degrees Fahrenheit. . . . Alternatively, the heater 108 heats the wash solution to another temperature known to kill microbes.” (Spec. ¶054.)

FF3. Lawler disclosed a meat processing system that includes a step for stunning the animal (Lawler col. 4, ll. 47-49), attaching the animal to a

wheeled shackle that is mounted on an overhead rail and allows bidirectional movement of the animal (*id.* 4, ll. 47-61), an exsanguination step (*id.* col. 5, ll. 55-63) followed by a rinse (*id.* 8, ll. 46-57). At the rinse station the operator must insert the nozzle “into the carotid artery of the cow 14 . . . Upon proper insertion, the operator manually open a valve 160 to begin the flow of injectable solution into the circulatory system of the cow 14.” (Lawler 8, ll. 46-57.)

FF4. Norrie disclosed moving the animal through various zones in a meat processing system. After the slaughter of the animal, the animal is hung to allow body fluids to drain. (Norrie col. 1, ll. 10-13). The “[c]arcass processing apparatus having an overhead carrier for suspension of carcasses, a carcass conveyor located below the carrier with an angled support surface, the conveyor moving in unison with the carcass along the carrier” (Norrie Abstract). In the first zone “the carcass hangs vertically, and bodily fluids drain. The carcass is also subject to deluge flow of water for washing. The washing water will be at an elevated temperature but not at the high scalding temperature.” (Norrie col. 4, ll. 52-56.) In the next two zone the carcass is “subjected to a continuous deluge of water at a higher scalding temperature, flowing downwardly over the length of the carcass.” (*Id.* col. 5, ll. 1-13.) “After exiting zone Z3 the carcass is then moved along a rail (not shown) to further procssing [sic. processing] in the plant, or may be removed from the rail for further processing.” (*Id.* col. 5, ll. 21-23.)

FF5. Clayton disclosed that after the “the animal is killed and hung dead down from a hook. As shown in step 1, the animal's hide is removed and the head is separated from the carcass and placed on a separate production

line 1.” (Clayton col. 2, ll. 27-30.) “After the warm water wash, the head and carcass pass before a spray of acetic acid maintained from 80 degrees fahrenheit to 150 degrees fahrenheit as shown in step 3. The duration . . . for such a spray is about 5 to 25 seconds.” (Clayton col. 2, ll. 47-52.)

FF6. Simon disclosed a carcass processing procedure of “sequentially scalding the unprocessed pig carcass in a liquid bath at a temperature of substantially 57° to 59° C for about 5.5 minutes . . . Use of such a relatively low temprature [sic. temperature] loosens the bristles . . . Thus the skin that is treated in this manner is as strong as a raw hide.” (Simon col. 1, ll. 44-57.) After scalding the carcass in a liquid bath the hide is skinned from the carcass. (*Id.* col. 1, l. 58.)

FF7. Tsang disclosed

A process and apparatus for removing or reducing the levels of pathogenic bacteria present on an eviscerated carcass. The process includes introducing the eviscerated carcass to a cleaning apparatus. The cleaning apparatus generally includes a housing structure having an entrance and an exit. Disposed within the housing structure is a rotating brush assembly and a spray assembly. The brushing assembly provides brushing and massaging actions to the surfaces of the carcass whereas the spraying assembly simultaneously directs a cleaning solution onto the surfaces of the carcass.
(Tsang, Abstract)

PRINCIPLES OF LAW

“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.”
KSR Int’l Co. v. Teleflex Inc., 550 U.S. 398, 416 (2007).

ANALYSIS

Ground 1. Obviousness of claims 35-38, 40-43, and 47-57 as unpatentable over Lawler in view of Norrie and further in view of either Simon or alternatively in view of Clayton.

Based on the combination of Lawler, Norrie, and Simon or in the alternative Clayton, the Examiner concludes, that at the time of the claimed invention it would have been prima facie obvious to “take the device of Lawler and the applying the antimicrobial agent to the hide of the hide-on animal carcass of Norrie, so as to ensure that any contaminants are removed from the carcass prior to further processing” (Ans. 4) and include the “hide removal station of Clayton et al. or alternatively Simon et al., so as to allow for the animal to be prepared for further processing” (Ans.5).

Appellants contend that “[t]he rinse system of Lawler is not a hide rinse as discussed in the present claims.” (App. Br. 11.) “Lawler only carries out a vascular flushing prior to hide removal, and is silent about washing of the hide at all.” (App. Br. 12.) Appellants contend “Norrie does not disclose applying an antimicrobial agent to the hide of a hide-on animal.” (App. Br. 12.)

We are not persuaded by Appellants’ arguments. We find that the Examiner has established that the combined references provide the steps of stunning the animal, exsanguinating the animal, washing the animal as well as removing the hide. (FFs 3-6.) In particular, Lawler provides the step of stunning the animal, attaching the animal to a rail system, draining the body fluids from the animal, and performing a circulatory rinse of the animal (FF3). Norrie disclosed a process of killing the animal, attaching the animal

to an overhead rail and draining body fluids while subjecting the animal to a wash step before moving the animal along the rail for further processing (FF4). The Examiner cites Clayton and Simon for the hide removal process step (Ans. 5), and Simon specifically discloses removing the hide after bathing the carcass (FF5). “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR*, 550 U.S. at 416.

Appellants contend that the washing step does not meet the limitation of “where at least one antimicrobial agent is applied to a hide of a hide-on animal carcass.” (App. Br. 11.) Appellants contend “Norrie does not disclose applying an antimicrobial agent to the hide of a hide-on animal carcass as asserted in the Office Action” (App. Br. 12), and “[l]ike Norrie, Simon does not disclose applying an antimicrobial agent to the hide of a hide-on animal carcass.” (App. Br. 13) Appellants’ position is that “[t]he skilled artisan would have no reason to change the prior art practice of NOT applying antimicrobial agent to the hide of an animal after exsanguination but prior to hide removal.” (App. Br. 14.)

The claims require in pertinent part the limitation of “at least one antimicrobial agent.” The Specification defines an antimicrobial agent to be any “chemical or substance capable of killing, neutralizing or removing microorganisms.” (FF1.) The Specification further discloses that water is an antimicrobial agent. (FF1.) Thus, the limitation of ‘at least one antimicrobial agent’ is interpreted to include water. The limitation of “a wash station where at least one antimicrobial agent is applied to the hide of a

hide on animal,” as recited in claim 35, is interpreted to encompass applying water to the hide of an animal.

We are not persuaded by Appellants’ argument that water is not “an antimicrobial agent.” As noted by the Examiner, Norrie uses water in the washing steps, and water is encompassed by the definition of an antimicrobial agent as provided in the Specification. (FFs 1, 2, 4.) Additionally, Clayton discloses an acetic acid wash step after the removal of the hide of the animal (FF5), while Simons discloses washing the hide in hot water before removing the hide from the animal (FF6). Because the Specification discloses that water is encompassed by the definition of “an antimicrobial agent,” we find that the Examiner has established a prima facie case of obviousness based on the cited references.

Appellants cite to the Williams article⁶ for “evidence that when water is used as an antimicrobial intervention, the temperature of the water is 165 degrees F, or 73 degrees C.” (App. Br. 12.) Appellants assert that “a water-only solution must be at an elevated temperature in order to kill microbes.” (Reply Br. 3.) However, as discussed, the Specification expressly defines an antimicrobial agent as encompassing the washing steps disclosed by Norrie, even at temperatures that would not kill the microorganism. *See Serrano v. Telular Corp.*, 111 F.3d 1578, 1582 (Fed. Cir. 1997)(“The inventors’

⁶ Williams et al. *2010 Beef Cattle Report - Multiple Antimicrobial Interventions for the Control of Escherichia Coli 0157:H7 in Very Small Beef Processing Facilities*, University of Nebraska, Lincoln, Institute of Agriculture & Natural Resources, <http://beef.unl.edu/beefreports/201050.shtml>

definition and explanation of the meaning of the word ... as evidenced by the specification, controls the interpretation of that claim term).

We conclude that the preponderance of the evidence of record supports the Examiner's conclusion that the combination of Lawler in view of Norrie and further in view of either Simon or alternatively in view of Clayton renders obvious the system of claim 35. We thus, affirm the rejection of claim 35 under 35 U.S.C. § 103(a) as being obvious. As claims 36-38, 40-43, and 47-57 have not been argued separately, they stand with claim 35. 37 C.F.R. § 41.37(c)(vii).

Ground 2. Obviousness of claims 39 and 44-46 as unpatentable over Lawler as modified by Norrie and Clayton, and Lawler as modified by Norrie and Simon, and further in view of Tsang.

Based on the combination of references, the Examiner concludes, that at the time of the claimed invention it would have been prima facie obvious to "take the device of Lawler as modified by Norrie and Clayton et al. and Lawler as modified by Norrie and Simon et al. and add the scrubber of Tsang, so as to allow for the device to more effectively clean any unwanted material from the carcass." (Ans.11).

Appellants contend that Tsang does nothing to overcome the basic deficiency of the combination of references with respect the independent claim 35. (App. Br. 14.)

We are not persuaded. "The Tsang reference was relied on for disclosure of use of a brush to remove matter from an eviscerated carcass and a recycling system." (App. Br. 14.) The brushing step of Tsang would

meet the claim limitation of removing contaminants. As discussed above, we have found no error in the Examiner reason for combining Lawler, Norrie, and Clayton, or the combination of Lawler, Norrie, and Simon as applied to claim 35. We agree with the Examiner's conclusion that the addition of the brushing step of Tsang "allow[s] for the device to more effectively clean any unwanted [microbial] material from the carcass." (Ans. 11.)

We conclude that the preponderance of the evidence of record supports the Examiner's conclusion that the combination of Lawler in view of Norrie and further in view of either Simon or alternatively in view of Clayton renders obvious the method and device of claim 35. We thus, affirm the rejection of claim 35 under 35 U.S.C. § 103(a) as being obvious, and dependent claims 39 and 44-46 stand with claim 35. 37 C.F.R. § 41.37(c)(vii).

SUMMARY

We affirm the rejection of claims 35-38, 40-43, and 47-57 under 35 U.S.C. §103(a) as unpatentable over Lawler in view of Norrie and further in view of either Simon or alternatively in view of Clayton.

We affirm the rejection of claims 39 and 44-46 are obvious under 35 U.S.C. 103(a) over Lawler as modified by Norrie and Clayton, and Lawler as modified by Norrie and Simon, and further in view of Tsang.

AFFIRMED

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